## > d his

(FILE 'HOME' ENTERED AT 14:08:35 ON 02 JUL 2002)

FILE 'REGISTRY' ENTERED AT 14:08:41 ON 02 JUL 2002 STRUCTURE UPLOADED

Ll 3 S L1 L2

L3 806 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 14:10:19 ON 02 JUL 2002

378 S L3

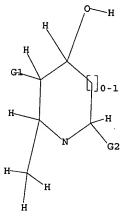
67 S L4 AND PATENT/DT 23 S L5 AND PYRROLI? L5 L6

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L4

L1 HAS NO ANSWERS

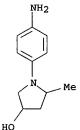
L1 STR



G1 C,H

G2 H,Cy,C

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=> d 1-23 bib abs hitstr
     ANSWER 1 OF 23 CAPLUS COPYRIGHT 2002 ACS
L6
     2002:449464 CAPLUS
AN
     Oxidation dyeing composition based on 1-(4-aminophenyl)
     pyrrolidines substituted in positions 2 and 4
IN
     Terranova, Eric; Sabelle, Stephane; Vidal, Laurent
     L'Oreal, Fr.
PA
so
     PCT Int. Appl., 32 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO. DATE
рT
     WO 2002045672
                       A1
                             20020613
                                             WO 2001-FR3571
                                                               20011114
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     FR 2817473
                       A1 20020607
                                              FR 2000-15843
                                                                20001206
PRAI FR 2000-15843
                        Α
                             20001206
     The invention concerns an oxidn. dyeing compn. for keratinous fibers, in
     particular human keratinous fibers such as hair, comprising as oxidn. base
     a 1-(4-aminophenyl)pyrrolidine substituted in positions 2 and 4.
     The invention also concerns the method for oxidn. dyeing of keratinous
     fibers using said compns. Thus, 1-(4-aminophenyl)-4-hydroxypyrrolidine-2-
     carboxylic acid (I) was prepd. by hydrogenation of 1-(4-nitrophenyl)-4-
     hydroxypyrrolidine-2-carboxylic acid (prepn. given). A hair dye compn.
     contained I 6x10-3 mol, 1-beta-hydroxyethylxoy-2,4-diaminobenzene
     dihydrochloride 6x10-3, excipients and water q.s. 100 g. Equal amts. of
     the dye compn. is mixed with 20 vol. hydrogen peroxide and is applied on
     the hair for 30 min, the hair is then rinsed, washed with a shampoo,
     rinsed, and dried to obtain a light blue color.
TТ
     433917-88-5
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidn. dyeing compn. based on substituted aminophenylpyrrolidines)
     433917-88-5 CAPLUS
     3-Pyrrolidinol, 1-(4-aminophenyl)-5-methyl- (9CI) (CA INDEX NAME)
CN
```



## RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 2 OF 23 CAPLUS COPYRIGHT 2002 ACS
L6
AN
     2002:107157 CAPLUS
DN
    136:167388
     Preparation and use of quinolone and naphthyridine derivatives as
TΤ
     inhibitors of cellular efflux pumps of microbes
    De Souza, Noel J.; Patel, Mahesh V.; Gupta, Shrikant V.; Upadhyay, Dilip
IN
     J.; Shukla, Milind C.; Chaturvedi, Nishith C.; Bhawsar, Satish B.; Nair,
     Sheela C.; Jafri, Mohammed A.; Khorakiwala, Habil F.
PA
     Wockhardt Limited, India
so
     PCT Int. Appl., 149 pp.
     CODEN: PIXXD2
DT
    Patent
T.A
    English
FAN.CNT 4
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
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20020207
    WO 2002009758
                      A2
                                           WO 2001-IN139
                                                            20010731
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-222201P
                            20000801
     US 2000-640947
                            20000819
     WO 2000-IN111
                            20001121
     US 2001-286291P
                       P
                            20010425
     US 2001-850669
                       Α
                            20010507
    WO 2001-IN100
                            20010508
     MARPAT 136:167388
os
GI
```

Title compds. I [R1 = H, (cyclo)alkyl, aryl, aralkyl, arylaminoalkyl, aryloxyalkyl, arylS00-2alkyl or when X = C and the nitrogen atom to which R1 is linked forms an (un) substituted 4-7 membered ring with X of the adjacent ring, the ring optionally contg. one or more hetero atoms selected from N, O, S, said heteroatom(s) represented by Y; R2 = H, CHO, COOR3, CONHR13, where R13 = H or the NHR13 of CONHR13 is the residue of an amino acid; R3 = H, alkyl, cycloalkyl, aryl, aralkyl, arylaminoalkyl, aryloxyalkyl, arylS00-2alkyl, O-carboxy, etc.; R4 = H; R4' = H or R4 and R4' taken together are :0, :S; R5 = H, alkyl, amino, alkylamino, acylamino; R6 = H, alkyl, halo, amino, hydroxy; R7 = OH, halo, NR9R10, etc.; R9-10 = H, alkyl, (CH2) nOA or R9 = H and R10 = 4-7 membered carbocyclic, heterocyclic ring linked to the nitrogen of NR9R10 through an atom of the heterocycle other than the heterocyclic atom, etc.; A = H, alkyl, glycosyl, aralkyl, alkanoyl, aminoalkanoyl wherein the aminoalkanoyl group may be an amino acid residue or A is C6H1106, SO3H, PO3H2; X = CH, CF, CCl, CCH3, CCF3, COCH3, COCHF2, C-OCF3, N or when X is equal to C it forms together with the nitrogen atom of the adjacent ring an (un)substituted 5-7 membered ring contg. carbon atoms and optionally Y atoms representing one or more N, O, S] were prepd. For instance, a mixt. of 1-ethyl-6,7-difluoro-1,4-dihydro-4-oxoquinolone-3-carboxylic acid and 1,2,3,4-tetrahydroisoquinoline (DMSO, Et3N 140.degree.C, 24 h) provided, after work-up and trituration II as a solid (62% yield), m.p. 220.degree.C. II with ciprofloxacin had a fractional inhibitory concn. (FIC) index of 0.314 obsd. against S. aureus 1199 B (Nor A+). I are effective at inhibiting efflux pumps, e.g., MefA, MefE, Bmr, PmrA, etc. 396132-42-6P, 5-Amino-1-(2,4-difluorophenyl)-6,8-difluoro-1,4dihydro-7-(3-hydroxy-5-methylpyrrolidin-1-yl)-4-oxoquinoline-3-carboxylic RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

TT

Me

RN

CN

(drug; prepn. and use of quinolone and naphthyridine derivs. as inhibitors of cellular efflux pumps of microbes) 396132-42-6 CAPLUS 3-Quinolinecarboxylic acid, 5-amino-1-(2,4-difluorophenyl)-6,8-difluoro-1,4-dihydro-7-(4-hydroxy-2-methyl-1-pyrrolidinyl)-4-oxo- (9CI) (CA INDEX NAME)

ANSWER 3 OF 23 CAPLUS COPYRIGHT 2002 ACS

L6

```
ΑN
     2001:676565 CAPLUS
DN
     135:247001
     Oxidation dyeing composition for keratinous fibers and dyeing method using
TI
     same
ΤN
     Lang, Gerard
PA
     L'Oreal, Fr.
so
     PCT Int. Appl., 51 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     French
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     -------
                                           -----
                     ----
PΙ
     WO 2001066072
                      A1
                           20010913
                                           WO 2001-FR663
                                                            20010306
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            CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY,
                                        KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD,
     FR 2805738
                           20010907
                                           FR 2000-2858
                      A1
                                                            20000306
     EP 1181004
                            20020227
                                           EP 2001-913934
                      A1
                                                            20010306
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRAI FR 2000-2858
                      Α
                            20000306
     WO 2001-FR663
                            20010306
os
     MARPAT 135:247001
AB
     The invention concerns a ready-to-use oxidn. dyeing compn. for keratinous
     fibers, and in particular human keratinous fibers such as hair comprising,
     in a suitable dyeing medium, at least an oxidn. base selected among
     certain substituted paraphenylenediamine derivs. and their addn. salts
     with an acid, at least a second selected oxidn. base, and the dyeing
     method using said compn. A hair dye compn. contained 1-(4'-amino-3'-
```

methylphenyl)-4-hydroxy-2-methyl-pyrrolidine dihydrochloride

2x10-3, 2-methyl-5-aminophenol 3x10-3, 4-amino-3-methylphenol 10-3 mole, and water q.s. 100 g. Equal amt. of above compn. is mixed with 20 vol. hydrogen peroxide and applied on the hair for 30 min, the hair is then rinsed, washed with a shampoo, rinsed, and dried to obtain a purple red color.

IT 228268-74-4

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidative hair dye prepn. contg. paraphenylenediamine derivs.)

RN 228268-74-4 CAPLUS

CN 3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl- (9CI) (CA INDEX NAME)

# RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L6
     ANSWER 4 OF 23 CAPLUS COPYRIGHT 2002 ACS
     2001:676564 CAPLUS
AN
DN
     135:247000
ΤI
     Oxidation dyeing composition for keratinous fibers comprising
     paraphenylenediamine derivatives and coupling agents
     Lang, Gerard
IN
PA
     L'Oreal, Fr.
SO
     PCT Int. Appl., 56 pp.
     CODEN: PIXXD2
DТ
     Patent
T.A
     French
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO. DATE
     WO 2001066071
                                             WO 2001-FR660
PΙ
                       A1
                             20010913
                                                                20010306
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             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     FR 2805737
                             20010907
                                             FR 2000-2857
                                                                20000306
                       A1
     EP 1181005
                        A1
                             20020227
                                              EP 2001-915449
                                                               20010306
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                              20000306
```

PRAI FR 2000-2857 A 20000306 WO 2001-FR660 W 20010306

OS MARPAT 135:247000

AB The invention concerns a ready-to-use oxidn. dyeing compn. for keratinous fibers, and in particular human keratinous fibers such as hair comprising, in a suitable dyeing medium, at least an oxidn. base selected among certain substituted paraphenylenediamine derivs. and their addn. salts with an acid, at least a selected coupling agent, and the dyeing method using said compn. A hair dye compn. contained 1-(4'-amino-3'-methylphenyl)-4-hydroxy-2-methyl-pyrrolidine dihydrochloride 3x10-3, 2,4-diamino-1-(.beta.-hydroxyethyloxy)benzene 3x10-3, excipients and water q.s. 100 g. Equal amt. of above compn. is mixed with 20 vol. hydrogen peroxide and applied on the hair for 30 min, the hair is then rinsed, washed with a shampoo, rinsed, and dried to obtain a blue color.

IT 228268-74-4

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidn. dyeing compn. for keratinous fibers comprising paraphenylenediamine derivs. and coupling agents)

RN

CN

228268-74-4 CAPLUS

```
NAME)
      NH2
RE.CNT 12
              THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
L6
     ANSWER 5 OF 23 CAPLUS COPYRIGHT 2002 ACS
     2001:676563 CAPLUS
AN
     135:246999
DN
     Oxidation dyeing composition for keratinous fibers containing
TI
     paraphenylenediamine derivatives and oxidants
IN
     Lang, Gerard
PA
     L'Oreal, Fr.
     PCT Int. Appl., 44 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     French
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO.
                                                              DATE
PΙ
     WO 2001066070
                             20010913
                       A1
                                            WO 2001-FR646
                                                              20010305
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             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     FR 2805739
                       A1
                            20010907
                                            FR 2000-2860
                                                              20000306
PRAI FR 2000-2860
                             20000306
     MARPAT 135:246999
     The invention concerns a ready-to-use oxidn. dyeing compn. for keratinous
     fibers, and in particular human keratinous fibers such as hair comprising,
     in a suitable dyeing medium, at least an oxidn. base selected among
     certain substituted paraphenylenediamine derivs. and their addn. salts
     with an acid, at least an alk. agent and hydrogen peroxide, and the dyeing
     method using said compn. A hair dye compn. contained 1-(4'-amino-3'-
     methylphenyl)-4-hydroxy-2-methyl-pyrrolidine dihydrochloride
     0.837, 2,4-diamino-1-(.beta.-hydroxyethyloxy)-benzene 0.723, Oramix DG110
     3.24, ethanol 18, polyethylene glycol-400 2.7, Dissoluine D40 0.43, sodium
     metabisulfite 0.205, 20.5% ammonia 10, and water q.s. 100 g. Equal amt.
     of above compn. is mixed with 20 vol. hydrogen peroxide and applied on the
     hair for 30 min, the hair is then rinsed, washed with a shampoo, rinsed,
     and dried to obtain a blue color.
IT
     228268-74-4 359841-69-3
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (oxidn. dyeing compn. for keratinous fibers contg. paraphenylenediamine
        derivs. and oxidants)
RN
     228268-74-4 CAPLUS
CN
     3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl- (9CI) (CA INDEX
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3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl- (9CI) (CA INDEX

2 HCl

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RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
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```
ANSWER 6 OF 23 CAPLUS COPYRIGHT 2002 ACS
L6
     2001:676562 CAPLUS
AN
DN
     135:246998
     Oxidation dyeing composition for keratinous fibers comprising substituted
TI
     paraphenylenediamine derivatives and polymers
IN
     Lang, Gerard
PA
     L'Oreal, Fr.
so
     PCT Int. Appl., 71 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     French
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                                           ------
PT
     WO 2001066069
                      A1
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                                           WO 2001-FR645
                                                            20010305
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
            HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD,
     FR 2805740
                      A1
                           20010907
                                           FR 2000-2861
PRAI FR 2000-2861
                            20000306
    MARPAT 135:246998
os
     The invention concerns an oxidn. dyeing compn. for keratinous fibers, and
     in particular human keratinous fibers such as hair comprising, in a
     suitable dyeing medium, at least an oxidn. base selected among certain
     substituted paraphenylenediamine derivs. and their addn. salts with an
     acid, at least a polymer selected among amphoteric polymers, cationic
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polymers with specific repeat structural units, or amphiphilic polymers comprising at least a fatty chain, and the dyeing method using said compn. A hair dye compn. contained 1-(4'-amino-3'-methylphenyl)-4-hydroxy-2-

methyl-pyrrolidine dihydrochloride 0.837, 2,4-diamino-1-(.beta.-hydroxyethyloxy)-benzene 0.723, Miranol Al5 1, and water and excipients q.s. 100 g. Equal amt. of the compn. is mixed with 20 vol. hydrogen

peroxide and applied on the hair for 30 min, the hair is then rinsed, washed with a shampoo, and rinsed with water and dried to obtain a blue color.

IT 228268-74-4 359841-69-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidative hair dyes comprising substituted paraphenylenediamine derivs. and polymers)

RN 228268-74-4 CAPLUS

CN 3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl- (9CI) (CA INDEX NAME)

RN 359841-69-3 CAPLUS

CN 3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

2 HCl

FR 2805741

A1

20010907

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L6
    ANSWER 7 OF 23 CAPLUS COPYRIGHT 2002 ACS
AN
    2001:676561 CAPLUS
DN
    135:246997
    Oxidation dyeing composition for keratinous fibers with a particular
    paraphenylenediamine derivative and a particular direct dyeing agent
IN
    Lang, Gerard
PA
    L'Oreal, Fr.
so
    PCT Int. Appl., 49 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    French
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                           -----
                                          -----
PI
    WO 2001066068
                      A1
                           20010913
                                          WO 2001-FR644
                                                           20010305
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
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HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

FR 2000-2862

20000306

PRAI FR 2000-2862 A 20000306

OS MARPAT 135:246997

AB The invention concerns an oxidn. dyeing compn. for keratinous fibers, and in particular human keratinous fibers such as hair comprising, in a medium suitable for dyeing, at least an oxidn. base selected among certain substituted paraphenylenediamine derivs. and their addn. salts with an acid, and at least a synthetic direct dyeing agent selected among the azo, quinoid, triarylmethane, indoamino, azine dyes and/ or a natural dye. The invention also concerns a dyeing method using said compn. A hair dye compn. contained 1-(4'-amino-3'-methylphenyl)-4-hydroxy-2-methyl-pyrrolidine dihydrochloride 0.837, 2,4-diamino-1-(.beta.-hydroxyethyloxy)-benzene 0.723, Miranol A15 1, and water and excipients q.s. 100 g. Equal amt. of above compn. is mixed with 20 vol. hydrogen peroxide and applied on the hair for 30 min, the hair is then rinsed, washed with a shampoo, rinsed and dried to obtain a blue color.

IT 228268-74-4 359841-69-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. paraphenylenediamine derivs. direct dyes) 228268-74-4 CAPLUS

CN 3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl- (9CI) (CA INDEX

RN

RN 359841-69-3 CAPLUS CN 3-Pyrrolidinol, 1-(4-amino-3-methylphenyl)-5-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

●2 HCl

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2002 ACS

AN 2001:114972 CAPLUS

DN 134:163282

TI Preparation of long chain N-alkyl amino and imino alditols and oxa-derivatives as antiviral agents

IN Zitzmann, Nicole; Butters, Terry D.; Platt, Frances M.; Carrouee, Sandra; Jacob, Gary S.; Picker, Donald H.; Fleet, George W. J.; Dwek, Raymond A.

PA UK

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE

APPLICATION NO. DATE

```
20010215
                                           WO 2000-US21732 20000810
PΙ
    WO 2001010429
                      A2
     WO 2001010429
                      A3
                            20010816
         W: AU, BR, CA, CN, IN, JP, KR, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT. SE
     AU 2001018401
                       A5
                            20010305
                                           AU 2001-18401
                                                            20000810
                            20020605
                                           EP 2000-952683
                                                            20000810
     EP 1210082
                       A2
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, FI, CY
PRAI US 1999-148101P
                      Р
                            19990810
     US 2000-198621P
                       P
                            20000420
                       W
                            20000810
     WO 2000-US21732
os
     MARPAT 134:163282
GI
```

Long chain N-alkyl amino and imino compds., oxa-substituted derivs. R5R4R3CNR2R1 were prepd. wherein; R1 is an alkyl or an oxa-substituted deriv. thereof; R2 is hydrogen, R3 is carboxy or alkoxycarbonyl, or R2 and R3, together, are -(CXY)n-, wherein n is 3 or 4, each X, independently, is selected from the group consisting of hydrogen, hydroxy, amino, carboxy, alkylcarboxy, alkyl, alkoxy, hydroxyalkyl, acyloxy, and aroyloxy, and each Y, independently, is selected from the group consisting of hydrogen, hydroxy, amino, carboxy, alkylcarboxy, alkyl, alkoxy, hydroxyalkyl, acyloxy, aroyloxy, and deleted; R4 is hydrogen or deleted; and R5 is selected from the group consisting of hydrogen, hydroxy, amino, substituted amino, carboxy, alkoxycarbonyl, aminocarbonyl, alkyl, aryl, aralkyl, alkoxy, hydroxyalkyl, acyloxy, and aroyloxy, or R3 and R5, together, form a Ph and R4 is deleted; wherein when R2 and R3, together, are -(CXY)n- and R4 is deleted, all Y are deleted, or a physiol. acceptable salt or solvate of said compd. thereof, and pharmaceutical compns. including such compds. are described. The long chain N-alkyl compds. and oxa-substituted derivs. thereof can be used in the treatment of viral infections, in particular hepatitis B virus or hepatitis C virus, in a cell or an individual. For example, the long chain N-alkyl compds. or oxa-substituted derivs. thereof can be derived from piperidines, pyrrolidines, phenylamines, pyridines, pyrroles, or amino acids. Thus, imino alditol I was prepd. and tested for its antiviral activity against hepatitis B virus or hepatitis C virus, in a cell or an individual (EC50 = 2-3 .mu.M).

IT 324759-99-1P 324760-01-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of long chain N-alkyl amino and imino alditols and oxa-derivs. as antiviral agents)

RN 324759-99-1 CAPLUS

CN 3,4,5-Piperidinetriol, 1-(6-ethoxyhexyl)-2-methyl-, hydrochloride, (2R,3S,4R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09/700278

### ● HCl

324760-01-2 CAPLUS RN 3,4,5-Piperidinetriol, 2-methyl-1-nonyl-, (2R,3S,4R,5S)- (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

IT 324759-98-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of long chain N-alkyl amino and imino alditols and oxa-derivs.

as antiviral agents) 324759-98-0 CAPLUS

RN

3,4,5-Piperidinetriol, 1-(6-ethoxyhexyl)-2-methyl-, (2R,3S,4R,5S)- (9CI)CN (CA INDEX NAME)

Absolute stereochemistry.

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L6
    ANSWER 9 OF 23 CAPLUS COPYRIGHT 2002 ACS
```

AN 2000:508200 CAPLUS

DN 133:105054

Prepartion of benzamidines as muscarinic receptor agonists ΤI

Villalobos, Anabella; Yohannes, Daniel; Nowakowski, Jolanta; Liston, Dane IN

PA USA

so

U.S., 20 pp. CODEN: USXXAM

DT Patent

LΑ English

FAN.	CNT 1 PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 6093733	Α	20000725	US 1997-848359	19970430
PRAI	US 1996-16474P	P	19960430		
os	MARPAT 133:10505	4			
GI					

$$Z-N$$
  $R^3$   $I$   $X-C-Y=C-NHR^2$   $I$ 

- The title compds. I [X = NR4R5 (a proviso is given), C1-10 alkyl or C3-10 AB cycloalkyl; Y = CH or N; Z = NR7R8 (a proviso is given), C3-10 cycloalkyl, C1-10 alkyl, pyridyl, or phenyl; R2, R3 = (un)substituted phenyl], useful for the treatment or prevention of diseases the treatment or prevention of which is mediated by muscarinic receptor agonism (no data given), are
- IT 283594-04-7P 283594-14-9P 283594-15-0P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of benzamidines as muscarinic receptor agonists)
- 283594-04-7 CAPLUS RN 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)[(4-CN fluorophenyl)amino]methylene]-4-hydroxy-2-methyl-N'-phenyl- (9CI) (CA INDEX NAME)

283594-14-9 CAPLUS 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)[(4-CN fluorophenyl)amino]methylene]-4-hydroxy-2-methyl-N'-phenyl-, (2R,4S)-rel-(9CI) (CA INDEX NAME)

Relative stereochemistry.

- 283594-15-0 CAPLUS
- 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)[(4fluorophenyl) amino] methylene] -4-hydroxy-2-methyl-N'-phenyl-, (2R,4R)-rel-(CA INDEX NAME)

Relative stereochemistry.

# RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L6
     ANSWER 10 OF 23 CAPLUS COPYRIGHT 2002 ACS
     1997:732136 CAPLUS
AN
DN
     128:13209
     Preparation of N-phenyl-N'-(iminomethyl)benzamidines and analogs as
ΤI
     muscarinic agonists
     Liston, Dane R.; Nowakowski, Jolanta; Villalobos, Anabella; Yohannes,
IN
     Daniel
PA
     Pfizer Inc., USA
     Eur. Pat. Appl., 51 pp.
SO
     CODEN: EPXXDW
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                        KIND DATE
                                                 APPLICATION NO. DATE
                         ----
PΙ
     EP 805153
                         A1
                               19971105
                                                 EP 1997-302558
                                                                   19970415
     EP 805153
                          В1
                               20011114
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
     AT 208767
                                                AT 1997-302558
                          E
                               20011115
                                                                    19970415
     ES 2164990
                          T3
                               20020301
                                                 ES 1997-302558
                                                                    19970415
                               19971030
                                                 CA 1997-2203850
     CA 2203850
                          AA
                                                                    19970428
     JP 10072426
                               19980317
                                                 JP 1997-111186
                                                                    19970428
                          A2
     JP 2834112
                               19981209
                          B2
PRAI US 1996-16494P
                          Р
                               19960430
     MARPAT 128:13209
     Title compds., e.g., RN:CR1N:CHR3NHR2 [I; R = (cyclo)alkyl, NR7R8, pyridyl, Ph, etc.; R1 = (cyclo)alkyl, NR4R5, etc.; R2,R3 = (un)substituted
AB
     Ph; R4,R5,R7,R8 = alkyl; NR4R5,NR7R8 = heterocyclyl] were prepd. Thus,
     PhN:CCl2 was aminated by pyrrolidine and the ammoniated product condensed with PhC(:NPh)Cl to give I (R = R2 = R3 = Ph, R1 =
     pyrrolidino). Data for biol. activity of I were given.
IT
     199120-78-0P 199120-91-7P 199120-93-9P
```

199120-78-0P 199120-91-7P 199120-93-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of N-phenyl-N'-(iminomethyl)benzamidines and analogs as muscarinic agonists)
199120-78-0 CAPLUS

CN 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)][(4-fluorophenyl)amino]methylene]-4-hydroxy-2-methyl-N'-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

### ● HCl

RN 199120-91-7 CAPLUS CN 1-Piperidinecarboximic

N 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)[(4-fluorophenyl)amino]methylene]-4-hydroxy-2-methyl-N'-phenyl-,
monohydrochloride, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

#### 09/700278

#### HC1

RN 199120-93-9 CAPLUS
CN 1-Piperidinecarboximidamide, N-[(2,6-dimethylphenyl)]((4-

fluorophenyl)amino]methylene]-4-hydroxy-2-methyl-N'-phenyl-, monohydrochloride, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

### • HCl

WO 1995-US12365

OS GI MARPAT 125:142545

```
ANSWER 11 OF 23 CAPLUS COPYRIGHT 2002 ACS
     1996:466897 CAPLUS
AN
DN
     125:142545
     Preparation of heterocyclic LTA4 hydrolase inhibitors
TI
     Chandrakumar; Nizal Samuel; Chen, Barbara Baosheng; Clare, Michael; Desai,
     Bipinchandra Nanubhai; Djuric, Steven Wakefield; Docter, Stephan Hermann;
     Gasiecki, Alan Frank; Haack, Richard Arthur; Liang, Chi-Dean; et al. G.D. Searle and Co., USA
PA
so
     PCT Int. Appl., 342 pp.
     CODEN: PIXXD2
DΤ
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                        KIND DATE
                                              APPLICATION NO. DATE
PΤ
     WO 9611192
                        A1
                              19960418
                                              WO 1995-US12365 19951010
             AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES,
              FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV,
              MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
              SK, TJ
         RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
              SN, TD, TG
     US 5585492
                                               US 1994-321183
                              19961217
                                                                 19941011
                        Α
     CA 2202371
                        AΑ
                              19960418
                                               CA 1995-2202371
                                                                19951010
     AU 9536865
                        A1
                              19960502
                                               AU 1995-36865
                                                                 19951010
     EP 804427
                              19971105
                                              EP 1995-934554
                        A1
                                                                 19951010
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE
     JP 10512848
                        T2
                              19981208
                                              JP 1995-512608 19951010
PRAI US 1994-321183
                              19941011
```

19951010

The title compds. ArlQAr2YRZ [Arl, Ar2 = (un) substituted aryl; Z = (un) substituted nitrogen-contg. moiety which may be an acyclic, cyclic or bicyclic amine or (an) (un) substituted monocyclic or bicyclic nitrogen-contg. heteroarom. moiety; Q, Y = linking group; R = alkylene], useful in the treatment of inflammatory diseases which are mediated by LTB4 prodn. [e.g., psoriasis (no data), ulcerative colitis (no data), irritable bowel syndrome (no data), and asthma (no data)], are prepd. Thus, 4-phenoxyphenol was condensed with 1-(2-chloroethyl) pyrrolidine hydrochloride, producing pyrrolidine I, which demonstrated a IC50 of 30 nM in a recombinant human LTA4 hydrolase assay.

IT 179022-36-7P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic LTA4 hydrolase inhibitors)

RN 179022-36-7 CAPLUS

CN 4-Piperidinol, 2-methyl-1-[2-[4-(phenylmethyl)phenoxy]ethyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

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L6 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2002 ACS
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KIND

A2

DATE

19960418

19951010

AN 1996:452004 CAPLUS

DN 125:142725

TI LTA4-Hydrolase inhibitors, pharmaceutical compositions, and methods of use Chandrakumar, Nizal Samuel; Chen, Barbara Baosheng; Clare, Michael; Desai, Bipinchandra Nanubhai; Djuric, Steven Wakefield; Docter, Stephan Hermann; Gasiecki, Alan Frank; Haack, Richard Arthur; Liang, Chi-Dean; et al.

APPLICATION NO.

WO 1995-US12367 19951010

DATE

PA G.D. Searle and Co., USA

SO PCT Int. Appl., 362 pp.

CODEN: PIXXD2

DT Patent LA English

FAN.CNT 1

PATENT NO.
-----PI WO 9610999
WO 9610999

WO 9610999 A3 19960919
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,

TD. TG SN. US 5723492 US 1995-469606 19950606 Α 19980303 CA 2202368 AA 19960418 CA 1995-2202368 19951010 AU 9536866 19960502 AU 1995-36866 Α1 19951010

EP 786992 A2 19970806 EP 1995-934555 19951010
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
JP 10512542 T2 19981202 JP 1995-512609 19951010
PRAI US 1994-321184 19941011

LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,

WO 1995-US12367 OS MARPAT 125:142725

GI

The invention provides compds. Ar1-Q-Ar2-Y-R-Z and pharmaceutically acceptable salts thereof [wherein Ar1 and Ar2 = (un) substituted (hetero) aryl moieties; Z = (un) substituted N-contq. moiety which may be an acyclic, cyclic, or bicyclic amine, or an (un) substituted monocyclic or bicyclic, N-contg., heteroarom. moiety; Q = O, CH2, OCH2, CH2O, NH, NHCH2, CH2NH, CF2, CH:CH, CH2CH2, or bond; R = alkylene moiety; Y = O, S, NH, S(0), S(0)2; Z is bound to R through a N atom]. I and their pharmaceutical compns. are useful in the treatment of inflammatory diseases which are mediated by LTB4 prodn., such as psoriasis, ulcerative colitis, inflammatory bowel disease, and asthma. Over 500 examples cover syntheses of various I and precursors, plus results of 3 bioassays. For instance, etherification of 1-(2-hydroxyethyl)pyrrolidine with 2-bromothiazole and NaH gave 74% 2-(2-pyrrolidinoethoxy )thiazole, which was lithiated with Bull and treated with PhCHO to give the 5-(.alpha.-hydroxybenzyl) deriv. in 66% yield. This was reduced with Et3SiH and CF3CO2H to give 74% title compd. II. In a recombinant human LTA4 hydrolase assay, title compd. III had IC50 of 2 nM. IT 179022-36-7P

RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of (hetero)aryloxyalkylamines and analogs as LTA4 hydrolase inhibitors)

RN 179022-36-7 CAPLUS

CN 4-Piperidinol, 2-methyl-1-[2-[4-(phenylmethyl)phenoxy]ethyl]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

AU 9476656

Al

19950410

```
L6
     ANSWER 13 OF 23 CAPLUS COPYRIGHT 2002 ACS
     1995:881295 CAPLUS
AN
DN
     123:285754
ΤI
     Preparation of N-(3-pyrrolidinyl)benzamide derivative with
     selective affinity to dopamine D3 and/or D4 receptor
     Ohmori, Junya; Maeno, Kyoichi; Hidaka, Kazuyuki; Nakato, Kazuhiro;
IN
     Sakamoto, Shuichi; Tsukamoto, Shin-ichi
PA
     Yamanouchi Pharmaceutical Co., Ltd., Japan
     PCT Int. Appl., 154 pp.
     CODEN: PIXXD2
DТ
     Patent
     Japanese
FAN.CNT 1
     PATENT NO.
                                           APPLICATION NO.
                      KIND DATE
                                                            DATE
PI
     WO 9508533
                       A1
                            19950330
                                           WO 1994-JP1547
                                                             19940920
         W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KE, KG,
             KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, NO, NZ, PL, PT, RO, RU,
             SD, SI, SK, TJ, TT, UA, US, UZ, VN
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
            BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
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AU 1994-76656

PRAI JP 1993-234425 19930921 WO 1994-JP1547 19940920

MARPAT 123:285754 os

For diagram(s), see printed CA Issue. GI

An N-(3-pyrrolidinyl)benzamide deriv. represented by general formula [I; R1 = halo; R2 =lower alkoxy; R3 = H or lower alkyl; A = a single bond or lower alkylene; ring B = each (un) substituted and (un) satd. 3- to 8-membered monocyclic hydrocarbon group or 4- to 16-membered fused bicyclic hydrocarbon groups, 3- to 8-membered heterocyclic group or 6- to 16-membered fuse bicyclic heterocyclic group each contg. one or two of the heteroatoms comprising N, S, and O, 4- to 16-membered bi- or tricyclic bridged hydrocarbon group, 6- to 16-membered bi- or tricyclic bridged heterocyclic group each contg. one or two of the heteroatoms comprising N, S, and O; R4 = Ph, (non)halogenated 3- to 8-membered monocyclic satd. hydrocarbon group, lower alkyl, halogenated lower alkyl, lower alkenyl; provided that when the A-ring B group represents benzyl, R4 represents a group other than Me] or a pharmaceutically acceptable salt thereof, which have a selective and potent affinity for dopamine D3 receptors and/or dopamine D4 receptors, is prepd.. A dopamine D3 receptor and/or dopamine D4 receptor antagonist contains said compd. I or pharmaceutically acceptable salt thereof. This compd. is useful as a psychotropic agent having little or no side effects such as extrapyramidal syndrome. N-pyrrolidinylbenzamide deriv. [(S)-II; R = H] was dissolved in CH2Cl2 followed by successively adding cyclohexylcarbonyl chloride and pyridine and the resulting mixt. was stirred at room temp. for 2 h to give the title compd. II (R = cyclohexylcarbonyl). II (R = cyclopropylcarbonyl) showed ED50 of 0.42 mg/kg s.c. for antagonizing apomorphine-induced climbing behavior of mice vs. 6.8 and 0.48 mg/kg for clozapine and II (R = Ac) fumarate, resp. In a binding affinity assay using a membrane sample of dopamine D2, D3, and D4 receptor genes-cloned cells, II (R = cyclopropylcarbonyl) showed Ki values of 200, 22, and 1.4 nM for dopamine D2, D3, and D4 receptor, resp., whereas II (R = Ac) fumarate showed 40, 11, and 1.1 nM, resp.

IT 154343-06-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate for prepn. of N-(pyrrolidinyl)benzamide deriv. as selective antagonists of dopamine D3 and/or D4 receptor)

ВИ 154343-06-3 CAPLUS

CN 3-Pyrrolidinol, 5-methyl-1-(phenylmethyl)-, (3R-trans)- (9CI) (CA INDEX

Absolute stereochemistry.

ANSWER 14 OF 23 CAPLUS COPYRIGHT 2002 ACS L6

AN 1994:521601 CAPLUS

DN 121:121601

TI Process for forming color image

IN Ohki, Nobutaka; Nakamura, Koichi; Taniguchi, Masato

PΑ

Fuji Photo Film Co., Ltd., Japan U.S., 65 pp. Cont.-in-part of U.S. Ser. No. 691,437, abandoned. SO CODEN: USXXAM

DT Patent

FAN.	CNT 3				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5278034	A	19940111	US 1992-989556	19921211
	JP 04011255	A2	19920116	JP 1990~114603	19900427
	JP 2726950	B2	19980311		
	JP 05188550	A2	19930730	JP 1992~4088	19920113
PRAI	JP 1990-114603		19900427		
	US 1991-691437		19910425		
	JP 1992-4088		19920113		
os	MARPAT 121:12160	1			

A rapid process for forming a color image comprises the step of developing an imagewise exposed silver halide color photog. material with a color

developing compn. contg. a N-(4-aminophenyl)pyrrolidine deriv. to produce color images of excellent hue.

IT 156938-22-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and use of, in color photog. developing compns.)

RN 156938-22-6 CAPLUS

Methanesulfonamide, N-[2-[2-amino-5-(3-hydroxy-2,5-dimethyl-1-CN pyrrolidinyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \parallel \\ NH - S - NH - CH_2 - CH_2 \\ \parallel \\ O \end{array}$$

$$\begin{array}{c} NH_2 \\ \parallel \\ NH_2 \\ \parallel$$

ANSWER 15 OF 23 CAPLUS COPYRIGHT 2002 ACS L6

ΑN 1994:508364 CAPLUS

121:108364 DN

Preparation of cephalosporin derivatives as bactericides TI

Tanaka, Kyoshi; Sutani, Mineichi; Komatsu, Miwako; Tsuchida, Keiichi; IN Saito, Akito; Hayashi, Kazuya; Kanna, Hiroshi; Goto, Aya; Minami, Shinzaburo; Watanabe, Yasuo

Toyama Chemical Co Ltd, Japan PΑ

so Jpn. Kokai Tokkyo Koho, 53 pp.

CODEN: JKXXAF

DTPatent

Japanese LΑ

	CNT 1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 06041149	A2	19940215	JP 1992-358584	19921228
PRAI	JP 1992-159993		19920528		
os	MARPAT 121:10836	4			

GI

R3

$$R_1$$
 $R_1$ 
 $R_2$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 

$$Q^{1} =$$

CONMe<sub>2</sub>
 $Q^{2} =$ 

S

The title compds. I [A = CH, CX, etc.; X = halo; R1 = (protected) amino; AB R2 = H, (substituted) alkyl, aryl, etc.; R3 = (substituted) cycloalkyl,

thienyl, etc.; R4 = H, halo, (substituted) alkyl, etc.; R5 = (protected) carboxyl, etc.; the wavy line between N and O indicates either syn or anti isomer; n = 0 or 1] are prepd. Title compd. II [A = CH; R2 = Me; R3 =Q1] in vitro exhibited MIC values of 0.2, 0.78, and 3.13 .mu.g/mL against Staphylococcus aureus FDA209P, .beta.-lactamase-producing Staphylococcus aureus F-137, and Pseudomonas aeruginosa IFO3445, resp. II [A = CH; R2 = Me; R3 = Q2] in vitro exhibited MIC values of .ltoreq. 0.1, 0.39, and 6.25 .mu.g/mL against Staphylococcus aureus FDA209P, .beta.-lactamase-producing Staphylococcus aureus F-137, and Pseudomonas aeruginosa IFO3445, resp. Title compds. I also have strong activity against methicillin-resistant Staphylococcus aureus.

IT 156865-71-3P 156865-72-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, in prepn. of bactericide)

156865-71-3 CAPLUS

3-Pyrrolidinol, 5-methyl-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

156865-72-4 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

ANSWER 16 OF 23 CAPLUS COPYRIGHT 2002 ACS L6

1994:334768 CAPLUS AN

DM 120:334768

ΤI Color developing agent , processing solution composition, and color image

IN Taniguchi, Masato; Ooki, Nobutaka

PΑ Fuji Photo Film Co Ltd, Japan SO

Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF DT Patent

LΑ

Japanese

FAN.	CNT 3				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 05188550	A2	19930730	JP 1992-4088	19920113
	US 5278034	Α	19940111	US 1992-989556	19921211
PRAI	JP 1990-114603		19900427		
	US 1991-691437		19910425		
	JP 1992-4088		19920113		
os	MARPAT 120:33476	8			
GI					

## 09/700278

The title principal color developing agent is a pyrrolidino -substituted compd., (I) [R1 = substituent(s); n = 0-6; when n .gtoreq.2, R1 may be the same or different from each other; R2, R3 = alkyl; R4 = substituent; m=0-4]. The processing soln. contains .gtoreq.1 I. The title processing is effected with the above processing soln. The above developing agent is useful in rapid processing, and yields thermally durable cyan images.

IT 155293-37-1

RL: USES (Uses)

(color photog. developing agent) 155293-37-1 CAPLUS

RN

3-Pyrrolidinol, 1-(4-aminophenyl)-2,5-dimethyl- (9CI) (CA INDEX NAME) CN

L6 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2002 ACS

AN 1994:298462 CAPLUS

DN 120:298462

ΤI Preparation of chiral 4-amino-2-methylpyrrolidines as intermediates for quinolonecarboxylate antibacterials Chu, Daniel T.; Li, Qun

IN

PA Abbott Laboratories, USA

so U.S., 13 pp. CODEN: USXXAM

DT Patent

LA	English	
FAN.	CNT 1	
	PATENT NO. KIND DATE APPLICATION NO. DATE	
PI	US 5252747 A 19931012 US 1992-943946 19920911	
	WO 9406766 A1 19940331 WO 1993-US7894 19930819	
	W: CA, JP	
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE	
	EP 659178 A1 19950628 EP 1994-910265 19930819	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE	
	JP 08501306 T2 19960213 JP 1993-508087 19930819	
PRAI	US 1992-943946 19920911	
	WO 1993-US7894 19930819	
os	MARPAT 120:298462	
CT		

AB Title compds. (e.g. I; R2 = OH and R8 = CH2Ph or CHMePh; R2 = NHAc or NHCO2CMe3 and R8 = CH2Ph or CHMePh) and related compds. (e.g. II; R = Ph, R6 = CO2R5, and R7 = Me and R = cyano, R6 = OH, halo, or cyano, and R7 = H; R5 = H, alkyl) were prepd. Thus, (S)-amino-1-propanol was reductively condensed with PhCHO and the product converted in 2 steps to II (R = R6 = cyano, R7 = H) which was cyclized to give (S)-N-benzyl-5-methyl-3-pyrrolidinone which was converted in 3 steps to (25,45)-I (R2 = NHAc, R8 = CH2Ph).

IT 152673-19-3P 152673-21-7P 152673-26-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, in prepn. of quinolonecrboxylate antibacterial)

RN 152673-19-3 CAPLUS

CN 3-Pyrrolidinol, 5-methyl-1-(phenylmethyl)-, (3R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 152673-21-7 CAPLUS CN 3-Pyrrolidinol, 5-methyl-1-(phenylmethyl)-, (3S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 152673-26-2 CAPLUS CN 3-Pyrrolidinol, 5-methyl-1-(1-phenylethyl)-, [3R-[1(S\*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Absolute stereochemistry. Rotation (+).

Absolute stereochemistry.

L6 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2002 ACS

AN 1994:271177 CAPLUS

DN 120:271177

TI Preparation of optically active amino acid derivatives having fixed conformation and anticonvulsants containing them

IN Sawanishi, Hiroyuki; Myamoto, Kenichi; Tanaka, Kenichi; Suzuki, Koichi

PA Tsumura & Co, Japan

SO Jpn. Kokai Tokkyo Koho, 40 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 05213957 A2 19930824 JP 1992-56058 1992020\*
OS MARPAT 120:271177
GI

The title compds. including spiropyrrolidineimidazoline derivs. (I; R1 = C1-6 alkyl, alkoxyalkyl, alkoxycarbonyl, hydroxyalkyl, CO2H; R2 = H, C1-6 alkyl, aryl, phenylalkyl, carbamoylalkyl, diphenylalkyl; R3, R4 = H, C1-6 alkyl, ester group) and aminopyrrolidinecarboxylic acid derivs. (II; R1, R2 = same as above), useful as anticonvulsants with low toxicity, are prepd. Thus, ethylation of Me L-hydroxyprolinate with EtI in CH2Cl2 contg. Et3N at 60.degree. gave (2S,4R)-1-ethyl-4-hydroxy-2-methoxycarbonylpyrrolidine. Swern oxidn. of the latter compd. with (COCl)2 and DMSO in CH2Cl2 contg. Et3N at -60.degree. gave (2S)-1-ethyl-4-oxo-2-methoxycarbonylpyrrolidine which underwent Bucherer-Bergs reaction with KCN and ammonium carbonate in 60% aq. MeOH at 55-60.degree. to give (3R,5S)-1-ethyl-5-methoxycarbonylspiro[pyrrolidine-3,5'-imidazoline]-2',4'-dione (III) and (3S,5S)-stereoisomer. A total of 65 I and II were prepd. and 17 I in vitro inhibited 20-100% the carbachol-induced contraction of guinea pig's ileums. Seven formulations, e.g. 200 mg tablets contg. 20 mg III, were described.

IT 154343-06-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

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(prepn. of, intermediate for anticonvulsant spiropyrrolidineimidazoline
deriv.)
        CAPLUS
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154343-06-3 RN

3-Pyrrolidinol, 5-methyl-1-(phenylmethyl)-, (3R-trans)- (9CI) (CA INDEX CN NAME)

Absolute stereochemistry.

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ANSWER 19 OF 23 CAPLUS COPYRIGHT 2002 ACS
L6
AN
    1993:192188 CAPLUS
DN
     118:192188
     Preparation of 2-methyl-5-hydroxymethyl- and 2,5-dimethyl-3,4-
ΤI
     dihydroxypyrrolidines as glycosidase and fucosidase inhibitors
IN
     Wong, Chi Huey; Liu, Kun Chin
     Scripps Research Institute, USA
PΑ
     PCT Int. Appl., 53 pp.
so
     CODEN: PIXXD2
דת
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                                           APPLICATION NO. DATE
                     KIND DATE
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                            -----
    WO 9221655
                            19921210
                                           WO 1992-US4408 19920526
     WO 9221655
                            19930107
                      A3
         W: AU, CA, JP
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE
     US 5229523
                      Α
                            19930720
                                          US 1992-835238 19920213
    AU 9221458
                            19930108
                                           AU 1992-21458
                                                            19920526
                      A1
     US 5352591
                            19941004
                                           US 1993-93782
                                                            19930719
                      Α
PRAI US 1991-707594
                            19910530
     US 1992-835238
                            19920213
     WO 1992-US4408
                            19920526
os
    MARPAT 118:192188
GT
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Me 
$$\sim$$
 CH<sub>2</sub>R<sup>2</sup>

Title compds. I (R1 = H, C1-12 alkyl, C7-10 aralkyl, C1-12 acyl, or NR1 is a C1-12 alkylamino or C7-10 aralkylamino N-oxide; R2 = H, HO) are prepd. AB as glycosidase and fucosidase inhibitors. 5-Azido-5-deoxy-L-xylohexulose-1-phosphate (prepn. given) in H2O was hydrogenated with Pd/C under H for 1 day to give (2R,3R,4R,5S)-I (R1=H,R2=OH) (II). A mixt. of II and its (2S)-diastereomer inhibited .alpha.-L-fucosidase with Ki = 0.004 mM. The inhibition of yeast .alpha.-glucosidase by (2R,5S)-bis(hydroxymethyl)-(3R, 4R) -dihydroxypyrrolidine was (Ki) 2.8 .times. 10-6M. IT 147060-26-2 RL: RCT (Reactant)

(fucosidase inhibition by isomeric methyl(hydroxymethyl)

pyrrolidinediol and)

RN 147060-26-2 CAPLUS

3,4-Pyrrolidinediol, 2-(hydroxymethyl)-5-methyl-, [2S-CN (2.alpha.,3.alpha.,4.beta.,5.beta.)] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 147060-64-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as fusosidase inhibitor)

RN 147060-64-8 CAPLUS

3,4-Pyrrolidinediol, 2-(hydroxymethyl)-5-methyl-, (2R,3R,4R,5R)- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry.

ANSWER 20 OF 23 CAPLUS COPYRIGHT 2002 ACS L6

AN 1990:158066 CAPLUS

DN 112:158066

Pyrrolines and tetrahydropyridines as intermediates for ΤI bactericides and antibiotics

Nishitani, Yasuhiro; Irie, Tadashi; Nishino, Yutaka IN

Shionogi and Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 13 pp. PA

so

CODEN: JKXXAF

DT Patent

LΑ Japanese

FAN.CNT 1

APPLICATION NO. DATE PATENT NO. KIND DATE -----ΡI JP 01233270 19890919 JP 1988-61219 19880314 A2 os MARPAT 112:158066

GI

AB The title compds. (I; R = H, protecting group; R1 = H, alkyl, halo; R2 = H, alkyl; Q = alkylene; Y = N3, OR3, NR4R5; R3, R4, R5 = H, alkyl, acyl, alkoxycarbonyl; m = 1,2), useful as side-chain groups for quinolonecarboxylate bactericides or cephalosporines, are prepd. Treatment of I (R = CO2CMe3; R1 = R2 = H; QY = CH2OSO2Me;  $\mathfrak{m}$  = 1) with 70% aq. EtNH2 gave I (QY = CH2NHEt). The prepd. tetrahydropyridines are not matched with the Markush definition.

IT 126092-72-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and mesylation of)

RN 126092-72-6 CAPLUS

1,3-Pyrrolidinedicarboxylic acid, 4-hydroxy-2,5-dimethyl-, 1-(1,1-dimethylethyl) 3-ethyl ester (9CI) (CA INDEX NAME)

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L6
     ANSWER 21 OF 23 CAPLUS COPYRIGHT 2002 ACS
     1989:439348 CAPLUS
AN
DN
     111:39348
ТI
     Preparation of 7-(2-methyl-4-aminopyrrolidinyl)oxonaphthyridines and
     -quinolones as antibacterial agents
     Rosen, Terry J.; Chu, Daniel T.
Abbott Laboratories, USA
IN
PA
SO
     Eur. Pat. Appl., 15 pp.
     CODEN: EPXXDW
DT
     Patent
LA
     English
FAN.CNT 2
     PATENT NO.
                       KIND
                             DATE
                                              APPLICATION NO.
                                                               DATE
PΤ
     EP 302371
                        A2
                             19890208
                                              EP 1988-112103
                                                                19880727
     EP 302371
                        A3
                             19891018
                        B1
                             19941214
         R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
     CA 1337600
                             19951121
                                              CA 1985-495685
                                                               19851119
                        A1
     US 4962112
                        Α
                             19901009
                                              US 1988-160950
                                                                19880226
     IL 87221
                              19930221
                                              IL 1988-87221
                                                                19880726
     ES 2068190
                        тз
                             19950416
                                              ES 1988-112103
                                                                19880727
     JP 01050880
                             19890227
                                              JP 1988-193315
                                                                19880802
                        A2
     JP 2645091
                             19970825
                        B2
                                                                19880802
     KR 9707918
                        B1
                             19970517
                                              KR 1988-9842
     AU 8820371
                        A1
                             19890209
                                              AU 1988-20371
                                                                19880803
     AU 615934
                             19911017
                        B2
     DK 8804353
                                              DK 1988-4353
                                                                19880804
                             19890205
                        Α
     DK 169786
                        B1
                             19950227
PRAI US 1987-81416
                             19870804
                        Α
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19880226

19830718

19840126

19840409

19851004

Α

B2

B2

Вl

Α

AB The title compds. (I; A = CH, N; R = 2,4-F2C6H3, 4-FC6H4; R1 = H, protective group; Z = 4-amino-2-methylpyrrolidin-1-yl) were prepd. as bactericides. I (A = N, R = 2,4-F2C6H3, R1 = Et, Z = Cl) was heated 14 h at 65.degree. with (2S,4S)-4-acetamido-2-methylpyrrolidine (prepn. in 9 steps from 4-hydroxyproline given) in pyridine contg. Et3N and the product deprotected to give title compd. II which had min. inhibitory concn. of 0.004-2 .mu.g/mL against 33 organisms.

IT 114676-61-8P

US 1988-160950

US 1983-514716

US 1984-574227

US 1984-597854

US 1985-784421

MARPAT 111:39348

OS

GI

## 09/700278

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and reaction of, in prepn. of antibacterial agents) 114676-61-8 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-hydroxy-2-methyl-, 1,1-dimethylethyl ester, (2S,4R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

ANSWER 22 OF 23 CAPLUS COPYRIGHT 2002 ACS L6

AN 1988:631085 CAPLUS

DN 109:231085

TI Preparation of fused aromatic oxazepinones, thiazepinones, diazepinones and the corresponding thiones as antihistaminics

IN Cale, Albert D., Jr.

PA

Robins, A. H., Co., Inc., USA U.S., 89 pp. Cont.-in-part of U.S. 4,592,866. so

CODEN: USXXAM

DTPatent

LA	English				
FAN.	CNT 4				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 4705853	 A	19871110	US 1986-835805	19860303
	NO 8303297	Ā	19840402	NO 1983-3297	19830914
	FI 8303319	A	19840331	FI 1983-3319	19830914
	FI 78102	В	19890228	11 1303 3313	17030710
	FI 78102	Č	19890612		
	IL 69760	A1	19880531	II 1983-69760	19830918
	IL 80414	A1	19880531	IL 1983-80414	19830918
	ZA 8306994	A	19840530	ZA 1983-6994	19830920
	AU 8319369	Al	19840405	AU 1983-19369	19830922
	AU 549349	B2	19860123	1905 19509	13030311
	IN 163433	A	19880924	IN 1983-CA118	19830927
	DK 8304506	A	19840331	DK 1983-4506	19830929
	HU 33793	0	19841228	HU 1983-3395	19830929
	HU 195649	В	19880628		
	ES 526086	A1	19860601	ES 1983-526086	19830929
	PL 143324	B1	19880229	PL 1983-254630	19830929
	PL 144480	B1	19880531	PL 1983-243953	19830929
	PL 144549	B1	19880630	PL 1983-254628	19830929
	PL 144550	B1	19880630	PL 1983-254629	19830929
	PL 145530	B1	19880930	PL 1983-254627	19830929
	HU 47089	A2	19890130	HU 1984-4018	19830929
	HU 199811	В	19900328		
	JP 59093047	A2	19840529	JP 1983-182920	19830930
	CA 1234809	A1	19880405	CA 1983-438362	19830930
	ES 543661	A1	19861201	ES 1985-543661	19850530
	CA 1245647	A1	19881129	CA 1985-483716	19850612
	US 4592866	A	19860603	US 1985-746091	19850618
	AU 8547084	A1	19860424	AU 1985-47084	19850903
	AU 574832	B2	19880714		
	AU 8547085	A1	19870305	AU 1985-47085	19850903
	AU 588827	B2	19890928		
	ZA 8507206	A	19860528	ZA 1985-7206	19850919
	ES 551422	<b>A1</b>	19870601	ES 1986-551422	19860130
	FI 8601411	Α	19860401	FI 1986-1411	19860401
	FI 78290	В	19890331		
	FI 78290	С	19890710		
	IN 163949	A	19881210	IN 1986-MA833	19861024
	US 4810795	A	19890307	US 1987-18661	19870225
	US 4812565 .	A	19890314	US 1987-18676	19870225
	FI 8802370	A	19880519	FI 1988-2370	19880519
	CA 1253145	A2	19890425	CA 1988-572363	19880718
יאמת	NO 9000132	A	19900110	NO 1990-132	19900110
PKAI	US 1982-431500		19820930		
	US 1983-527559		19830829		

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US 1984-652058
                        19840919
US 1985-746091
                        19850618
US 1982-431998
                        19820930
US 1983-527558
                        19830829
NO 1983-3297
                        19830914
FI 1983-3319
                        19830916
IL 1983-69760
                        19830918
IN 1985-MA65
                        19850125
CA 1985-483716
                        19850612
US 1986-835805
                        19860303
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OS CASREACT 109:231085

GI For diagram(s), see printed CA Issue.

The title compds. [I; ring A = (un) substituted, fused benzene, naphthalene, quinoline, pyrimidine; B = O, S; R = H, alkyl, C3-9 cycloalkyl, (un) substituted phenylalakyl; R1, R2 = H, C1-5 alkyl; Z = R3R4N, pyrazol-1-yl, imidazol-1-yl, 1-imidazolin-2-yl; R3, R4 = R, (un) substituted Ph; R3R4N = azetidino, morpholino, 1,2,3,6-tetrahydro-1pyridinyl, pyrrolo, 2,5-dihydropyrrol-1-yl, (un)substituted piperidino, piperazinyl; n = 1-3], their optical isomers, and pharmaceutically acceptable salts were prepd. as nonsedative antihistaminics. Na 2-[(1-methyl-3-pyrrolidinyl)oxy]-3-pyridinecarboxylate (prepn. given) in CHCl3 was treated with gaseous HCl, followed by addn. of Ph3P and CC14 and refluxing the mixt. 1.5 h, to give the cleaved and recyclized 2-(2-chloroethyl)pyridooxazepinone II.HCl (B = O, R5 = Cl). The latter was refluxed 18 h with P2S5 in CHCl3 to give II (B = S, R5 = Cl) which was heated at 100.degree. with aq. Me2NH in an autoclave to give II (B = S, R5 = Me2N), converted to its fumarate (1:1) (III). In cats 0.3 mg III/kg i.v. gave 50% inhibition of histamine-induced hypotension. No sedative effects were noted at doses .ltoreq.20 mg/kg, compared to diphenhydramine which exhibited signs of sedation at 0.5 mg/kg.

IT 89584-08-7

RL: RCT (Reactant)

(reaction of, in prepn. of antihistaminics)

RN 89584-08-7 CAPLUS

CN 3-Pyrrolidinol, 1,5-dimethyl- (7CI, 9CI) (CA INDEX NAME)

L6 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2002 ACS

AN 1987:67360 CAPLUS

DN 106:67360

TI Fused aromatic oxazepinones, thiazepinones, diazepinones and their sulfur analogs

IN Cale, Albert D., Jr.

PA Robins, A. H., Co., Inc., USA

SO U.S., 92 pp. Cont.-in-part of U.S. Ser. No. 652,058 abandoned.

CODEN: USXXAM

DT Patent

LA English FAN.CNT 4

PATENT NO. KIND DATE APPLICATION NO. DATE US 4592866 19860603 US 1985-746091 Α 19850618 NO 8303297 Α 19840402 NO 1983-3297 19830914 FI 8303319 19840331 FI 1983-3319 19830916 FI 78102 19890228 В FI 78102 С 19890612 IL 69760 A1 19880531 IL 1983-69760 19830918 IL 80414 19880531 IL 1983-80414 19830918 A1 ZA 8306994 Α 19840530 ZA 1983-6994 19830920 AU 8319369 A1 19840405 AU 1983-19369 19830922 AU 549349 B2 19860123 IN 163433 Α 19880924 IN 1983-CA118 19830927 DK 8304506 Α 19840331 DK 1983-4506 19830929 HU 33793 0 19841228 HU 1983-3395 19830929 HU 195649 19880628 В ES 526086 **A1** 19860601 ES 1983-526086 19830929 PL 143324 В1 19880229 PL 1983-254630 19830929 PL 144480 19880531 PL 1983-243953 19830929

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19880630
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     PL 144550
                           B1
     PL 145530
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                                 19880930
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     HU 47089
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     HU 199811
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     JP 59093047
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     CA 1234809
                           Α1
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     IN 161199
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     ES 543661
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     AU 588827
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     ZA 8507206
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                                 19860528
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     ES 551422
                           A1
                                                                       19860130
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     US 4642343
                           Α
     US 4705853
                           Α
                                 19871110
                                                   US 1986-835805
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     US 4727152
                           Α
                                 19880223
                                                   US 1986-835836
                                                                       19860303
     FI 8601411
                                 19860401
                                                   FI 1986-1411
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     FI 78290
                           В
                                 19890331
     FI 78290
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                                 19890710
                                                   IN 1986-MA833
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     IN 163949
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                           Α
                                                   FI 1988-2370
     FI 8802370
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                                                                       19880519
                           Α
                                                   CA 1988-572363
     CA 1253145
                           A2
                                 19890425
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     NO 9000132
                                 19900110
                                                   NO 1990-132
                                                                       19900110
PRAI US 1982-431500
                                 19820930
                                 19830829
     US 1983-527559
     US 1984-652058
                                 19840919
     US 1982-431998
                                 19820930
     US 1983-527558
                                 19830829
     NO 1983-3297
                                 19830914
     FI 1983-3319
                                 19830916
     IL 1983-69760
                                 19830918
     IN 1985-MA65
                                 19850125
     CA 1985-483716
                                 19850612
     US 1985-746091
                                 19850618
     US 1986-835805
                                 19860303
     CASREACT 106:67360
GI
     For diagram(s), see printed CA Issue.
     The title compds. [I; R = H, alkyl, cycloalkyl, (un) substituted
     phenylalkyl; R1, R2 = H, alkyl; R3 = amino, pyrazol-1-yl, imidazol-1-yl, imidazol-2-yl; 2-imidazolin-2-yl; X, X1 = O, S; n = 1-3; A = (un)substituted arom. ring selected from C6H6, naphthalene, quinoline, or pyridine] were prepd. as antihistaminics. Thus, 2-chloro-3-
     pyridinecarboxylic acid was treated with NaH and 1-methyl-3-
     pyrrolidinol to give Na 2-[(1-methyl-3-pyrrolidinyl
     )oxy]-3-pyridinecarboxylate. This was cyclized by treating with HCl and Ph3P in CCl4 to give pyrido[3,2-f][1,4]oxepin-5(4H)-one II.HCl (R4=Cl,4H)
     X2 = 0). The latter was converted to thione II (R4 = C1, X2 = S) which
     was aminolyzed with Me2NH to give II (R4 = Me2N, X2 = S), isolated as its
     fumarate (III). In cats 0.3 mg III/kg i.v. gave 50% inhibition of histamine-induced redn. in blood pressure. No sedative activity occurred
     at doses .ltoreq.20 mg/kg. Capsules were prepd. each contg. I 4, lactose
     130, and Mg stearate 4 mg.
IT
     89584-08-7
     RL: RCT (Reactant)
         (reaction of)
RN
     89584-08-7 CAPLUS
     3-Pyrrolidinol, 1,5-dimethyl- (7CI, 9CI) (CA INDEX NAME)
```

```
> s samarium iodide
         46248 SAMARIUM
        141667 IODIDE
           731 SAMARIUM IODIDE
L2
                 (SAMARIUM(W)IODIDE) .
=> s 12 and (sulfonimidoyl or desulfur?)
            63 SULFONIMIDOYL
         47724 DESULFUR?
             7 L2 AND (SULFONIMIDOYL OR DESULFUR?)
L3
=> d 1-7 bib abs kwic
     ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS
L3
AN
     2001:905544 CAPLUS
DN
     136:294703
     SmI2-promoted tandem desulfurization and reductive coupling
TI
     reactions of aromatic lactams with carbonyl compounds
ΑU
     Yoda, Hidemi; Ujihara, Yasuaki; Takabe, Kunihiko
     Department of Molecular Science, Faculty of Engineering, Shizuoka
CS
    University, Johoku, Hamamatsu, 432-8561, Japan
Tetrahedron Letters (2001), 42(52), 9225-9228
SO
     CODEN: TELEAY; ISSN: 0040-4039
PB
     Elsevier Science Ltd.
DT
     Journal
     English
LA
AB
     Treatment of S-substituted arom. lactams with carbonyl compds. in the
     presence of Sm(II) diiodide was found to undergo novel tandem
     desulfurization and reductive coupling reactions to generate
     .alpha.-hydroxyalkylated lactams in high yield. Stereochem. of the
     coupling products was researched and the results that decreasing the
     steric bulkiness of the N-substituents as well as raising the reaction
     temp. increases the erythro-selectivity were obsd. The mechanistic
     origins of this stereoselectivity are also briefly documented.
RE.CNT 48
              THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     SmI2-promoted tandem desulfurization and reductive coupling
ΤI
     reactions of aromatic lactams with carbonyl compounds
AB
     Treatment of S-substituted arom. lactams with carbonyl compds. in the
     presence of Sm(II) diiodide was found to undergo novel tandem
     desulfurization and reductive coupling reactions to generate
     .alpha.-hydroxyalkylated lactams in high yield. Stereochem. of the
     coupling products was researched and the results that decreasing the
     steric bulkiness of the N-substituents as well as raising the reaction
     temp. increases the erythro-selectivity were obsd. The mechanistic
     origins of this stereoselectivity are also briefly documented.
SТ
     samarium iodide promoted desulfurization
     reductive coupling lactam; hydroxyalkylated lactam prepn samarium
     iodide promoted; stereoselectivity desulfurization
     reductive coupling lactam ketone aldehyde; steric bulk
     desulfurization reductive coupling lactam
IT
     Stereoselective synthesis
        (of hydroxyalkylated lactams by samarium iodide
        promoted desulfurization and reductive coupling reactions)
IT
     Coupling reaction
        (reductive; samarium iodide-promoted tandem
        desulfurization and reductive coupling reactions of arom.
        lactams with carbonyl compds.)
IT
     Desulfurization
        (samarium iodide-promoted tandem
        desulfurization and reductive coupling reactions of arom.
        lactams with carbonyl compds.)
IT
     Carbonyl compounds (organic), reactions
     Lactams
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (samarium iodide-promoted tandem
        desulfurization and reductive coupling reactions of arom.
        lactams with carbonyl compds.)
IT
     270926-32-4P
                    270926-37-9P
                                   408325-04-2P
                                                   408325-05-3P 408325-06-4P
     408325-07-5P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn. by samarium iodide-promoted tandem
        desulfurization and reductive coupling reactions of arom.
        lactams with carbonyl compds.)
                                           98-86-2, Methyl phenyl ketone,
     67-64-1, Dimethyl ketone, reactions
     reactions
                 107-87-9, Methyl propyl ketone
                                                  111-71-7, Heptanal
     2142-01-0
                 102466-93-3
     RL: RCT (Reactant); RACT (Reactant or reagent)
```

```
(samarium iodide-promoted tandem
         desulfurization and reductive coupling reactions of arom.
         lactams with carbonyl compds.)
     200411-13-8P
                     200411-14-9P
                                     222713-05-5P
                                                      408325-00-8P 408325-01-9P
     408325-03-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
         (samarium iodide-promoted tandem
         desulfurization and reductive coupling reactions of arom.
        lactams with carbonyl compds.)
ТT
     32248-43-4, Samarium diiodide
     RL: RGT (Reagent); RACT (Reactant or reagent)
         (samarium iodide-promoted tandem
        desulfurization and reductive coupling reactions of arom.
         lactams with carbonyl compds.)
     ANSWER 2 OF 7 CAPLUS COPYRIGHT 2002 ACS
L3
     2000:758692 CAPLUS
AN
DN
     134:71445
     Distant Functionalization via Incorporation of Thiophene Moieties in
     Electrophilic Reactions Promoted by Samarium Diiodide
     Yang, Shyh-Ming; Nandy, Sandip Kumar; Selvakumar, Anandakathir Robinson;
AII
     Fang, Jim-Min
     Department of Chemistry, National Taiwan University, Taipei, 106, Taiwan
     Organic Letters (2000), 2(23), 3719-3721
CODEN: ORLEF7; ISSN: 1523-7060
so
PB
     American Chemical Society
DT
     Journal
LА
     English
     CASREACT 134:71445
os
     Me thiophene-2-carboxylate, Me 3-(thien-2-yl)acrylate, and Me
AB
     5,2'-bithiophene-2-carboxylate were utilized as the synthetic equiv. of
     pentanoate 5-anion, pentanoate 4,5-dianion, heptanoate 7-anion, and
     nonanoate-8,9-dianion. By the promotion of samarium diiodide, these
     thiophene-incorporating compds. reacted with aldehydes, ketones, and
     conjugated esters regioselectively at the thienyl rings. Long-chain
     esters with remote hydroxyl and carboxyl groups, including an antiarthritis agent, a shellac component, and an inhibitory agent of spore
     germination, were prepd. after reductive desulfurization on
     Raney nickel.
               THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
     Me thiophene-2-carboxylate, Me 3-(thien-2-yl)acrylate, and Me
     5,2'-bithiophene-2-carboxylate were utilized as the synthetic equiv. of
     pentanoate 5-anion, pentanoate 4,5-dianion, heptanoate 7-anion, and nonanoate-8,9-dianion. By the promotion of samarium diiodide, these
     thiophene-incorporating compds. reacted with aldehydes, ketones, and
     conjugated esters regioselectively at the thienyl rings. Long-chain
     esters with remote hydroxyl and carboxyl groups, including an antiarthritis agent, a shellac component, and an inhibitory agent of spore germination, were prepd. after reductive desulfurization on
     Raney nickel.
IT
     Addition reaction
         (electrophilic; prepn. of long-chain alkanoic acid esters via
        samarium iodide-mediated reactions of
         thiophenecarboxylate and thiopheneacrylate)
IT
     Carboxylic acids, preparation
     RL: SPN (Synthetic preparation); PREP (Preparation) (esters; prepn. of long-chain alkanoic acid esters via samarium
         iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
     315706-58-2P 315706-59-3P
                                     315706-60-6P
     RL: BYP (Byproduct); PREP (Preparation)
         (prepn. of long-chain alkanoic acid esters via samarium
         iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
     315706-38-8P 315706-44-6P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
      (Preparation); RACT (Reactant or reagent)
         (prepn. of long-chain alkanoic acid esters via samarium
         iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
TT
     188941-54-0P
                    315706-53-7P
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
         (prepn. of long-chain alkanoic acid esters via samarium
         iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
IT
                          99-91-2 104-87-0, p-Tolualdehyde
     66-25-1, Hexanal
```

```
Cyclohexanone, reactions 120-92-3, Cyclopentanone 122-00-9 123-1 p-Anisaldehyde, reactions 124-19-6, Nonanal 832-01-9, Methyl 4-methoxycinnamate 3453-33-6, 6-Methoxy-2-naphthaldehyde 3515-21-7
                                                                              123-11-5,
     5380-42-7, Methyl 2-thiophenecarboxylate 18707-60-3, Methyl crotonate
     20883-96-9, Methyl 3-(2-thienyl)acrylate
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (prepn. of long-chain alkanoic acid esters via samarium
        iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
     188941-59-5P
                     188941-60-8P
                                       188941-70-0P
                                                        315706-32-2P
                                                                        315706-33-3P
TT
                                                        315706-37-7P
     315706-34-4P
                      315706-35-5P
                                       315706-36-6P
                                                                        315706-39-9P
     315706-40-2P
                      315706-41-3P
                                       315706-42-4P
                                                       315706-43-5P
                                                                       315706-63-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
         (prepn. of long-chain alkanoic acid esters via samarium
         iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
                    54576-15-7P
                                                    315706-45-7P
                                    86233-89-8P
                                                                    315706-46-8P
IT
     38048-96-3P
                     315706-48-0P
                                      315706-49-1P
                                                        315706-50-4P
                                                                        315706-51-5P
     315706-47-9P
     315706-52-6P
                      315706-54-8P
                                       315706-55-9P
                                                        315706-56-0P
                                                                        315706-57-1P
     315706-61-7P
                      315706-62-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (prepn. of long-chain alkanoic acid esters via samarium
        iodide-mediated reactions of thiophenecarboxylate and
         thiopheneacrylate)
     ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS
L3
     1998:745666 CAPLUS
DN
     130:95445
     Metalated 2-Alkenylsulfoximides in asymmetric synthesis:
TI
     diastereoselective preparation of highly substituted pyrrolidine
ΑIJ
     Reggelin, Michael; Heinrich, Timo
     Fachbereich Chemie Universitat, Frankfurt/Main, D-60439, Germany Angewandte Chemie, International Edition (1998), 37(20), 2883-2886
CS
SO
     CODEN: ACIEF5; ISSN: 1433-7851
PB
     Wiley-VCH Verlag GmbH
DT
     Journal
LΑ
     English
GI
```

AB The stereoselective synthesis of enantiomerically pure, highly substituted pyrrolidine derivs. I and II (R1 = H, Me; R2 = CH2Ph, CH2CHMe2, CH2OCMe3) starting from valine-derived alkenylsulfoximides III (p-To1 = 4-MeC6H4) and their enantiomers is described. Thus, lithiation of III, followed by transmetalation with ClTi(OCHMe2)3 and reaction with 9-fluorenylmethoxycarbonyl (Fmoc)-protected .alpha.-amino aldehydes, piperidine-promoted deprotection, cyclization, re-protection with Boc2O, and desulfuration with SmI2 in MeOH gave heterocycles I. The abs. configuration at the newly formed stereogenic centers C-3 and C-4 is controlled by the abs. configuration at sulfur, and the configuration at C-5 is a result of conformational preferences of the cyclization precursor.

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

The stereoselective synthesis of enantiomerically pure, highly substituted pyrrolidine derivs. I and II (R1 = H, Me; R2 = CH2Ph, CH2CHMe2, CH2OCMe3) starting from valine-derived alkenylsulfoximides III (p-To1 = 4-MeC6H4) and their enantiomers is described. Thus, lithiation of III, followed by transmetalation with ClTi(OCHMe2)3 and reaction with 9-fluorenylmethoxycarbonyl (Fmoc)-protected .alpha.-amino aldehydes, piperidine-promoted deprotection, cyclization, re-protection with Boc2O, and desulfuration with SmI2 in MeOH gave heterocycles I. The abs. configuration at the newly formed stereogenic centers C-3 and C-4 is controlled by the abs. configuration at sulfur, and the configuration at C-5 is a result of conformational preferences of the cyclization precursor.

```
asym synthesis highly substituted pyrrolidine; stereoselective aldol
     alkenylsulfoximide titanium anion protected amino aldehyde; reductive
     desulfurization pyrrolidinylmethylsulfoximide samarium
IT
     Desulfurization
         (reductive; samarium iodide reductive
        desulfurization in diastereoselective prepn. of highly
        substituted pyrrolidine derivs.)
IT
     13813-25-7, Samarium iodide
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (samarium iodide reductive desulfurization
        in diastereoselective prepn. of highly substituted pyrrolidine derivs.)
     ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS
L3
AN
     1994:408268 CAPLUS
DN
     121:8268
     Reactions of RNCO and RNCS promoted by SmI2
TI
     Liu, Yunshan; Bei, Meizhi
ΑU
CS
     Dep. Chem., Nanjing Norm. Univ., Nanjing, 210024, Peop. Rep. China
     Youji Huaxue (1994), 14(1), 34-8
     CODEN: YCHHDX; ISSN: 0253-2786
DT
     Journal
LΑ
     Chinese
os
     CASREACT 121:8268
     The SmI2/THF/HMPA system can promote the reductive coupling reaction of
AB
     RNCO (R = Ph, substituted Ph) successfully to give the oxalic diamides at room temp. in good yields. The same system can also promote the
     cross-coupling reaction of PhNCO with PhCOCl and alkyl halides to give
     amides. But RINCS (R1 = Ph, 4-tolyl, Bu) were desulfurized to give isocyanides in high yields under the similar conditions.
AB
     The SmI2/THF/HMPA system can promote the reductive coupling reaction of
     RNCO (R = Ph, substituted Ph) successfully to give the oxalic diamides at
     room temp. in good yields. The same system can also promote the
     cross-coupling reaction of PhNCO with PhCOCl and alkyl halides to give
     amides. But RINCS (R1 = Ph, 4-tolyl, Bu) were desulfurized to
     give isocyanides in high yields under the similar conditions.
     isocyanate coupling samarium iodide; isothiocyanate
     desulfurization samarium iodide
IT
     Desulfurization
        (of aryl isothiocyanates, in presence of samarium diiodide)
     103-72-0, Phenyl isothiocyanate 592-82-5, n-Butyl isothiocyanate
     622-59-3, p-Tolyl isothiocyanate
                                          3878-45-3, Triphenylphosphine sulfide
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (desulfurization of, in presence of samarium diiodide)
     ANSWER 5 OF 7 CAPLUS COPYRIGHT 2002 ACS
L3
AN
     1994:106672 CAPLUS
DN
ΤI
     Samarium diiodide-promoted reductive cleavage of carbon-sulfur bonds: a
     novel stereoselective generation of functionalized vinylsamarium species
     and synthesis of .beta.-thiobutenolides
ΑU
     Hojo, Makoto; Harada, Hajime; Yoshizawa, Junji; Hosomi, Akira
     Dep. Chem., Univ. Tsukuba, Tsukuba, 305, Japan
Journal of Organic Chemistry (1993), 58(24), 6541-2
CS
SO
     CODEN: JOCEAH; ISSN: 0022-3263
DT
     Journal
LΑ
     English
os
     CASREACT 120:106672
GI
```

AB Alkoxycarbonylketene dithioacetals EtO2CR:C(SMe)2 (R = Et, Bu, CHMe2, allyl, Ph) are cleanly reduced by SmI2 to provide a new and efficient method for the stereoselective generation of the corresponding novel highly functionalized vinylsamarium species, otherwise inaccessible, which react with a proton, allyl bromide, and aldehydes. Using this reductive cleavage of a carbon (sp2)-sulfur bond by SmI2, a formal substitution reaction of a methylthio group by an electrophile can be attained to give reduced or allyl-substituted products EtO2CCR:CRISMe (R1 = H, allyl); this

```
reactivity is opposite that of functionalized ketene dithioacetals.
     Furthermore, an efficient synthesis of .beta.-thiobutenolides I (R2 = Et,
     PhCH2CH2, Me2CH, Me3C, Ph, 4-MeOC6H4) by the reaction of these
     vinylsamarium species with carbonyl compds. R2CHO can be accomplished.
     reductive desulfurization ketene dithioacetal samarium;
     vinylsamarium cyclocondensation aldehyde; electrophilic allylation
     vinylsamarium; butenolide methylthio
IT
     Aldehydes, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cyclocondensation of, with ketene dithioacetals, butenolides from
        samarium iodide-promoted)
IT
     Mercaptals and Mercaptoles
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (ketene, reductive desulfurization, allylation, or
        cyclocondensation with aldehydes, samarium iodide
IT
     Desulfurization
        (reductive, of ketene dithioacetals with samarium diiodide)
IT
     32248-43-4, Samarium diiodide
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (agent, for reductive desulfurization, allylation, or
        cyclocondensation of ketene dithioacetals with aldehydes)
     78-84-2, Isobutyraldehyde 100-52-7, Benzaldehyde, reactions
IT
                                                                     104-53-0,
     3-Phenylpropanal 123-11-5, 4-Methoxybenzaldehyde, reactions
     Propionaldehyde, reactions 630-19-3, Pivaldehyde
     RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with ketene dithioacetals, butenolides from
        samarium iodide-promoted)
     124658-68-0P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and reductive desulfurization of, stereochem. of
        samarium iodide-promoted)
IT
     124658-66-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., reductive desulfurization, allylation, or
        cyclocondensation with aldehydes, samarium iodide
        -promoted)
TТ
     5841-53-2P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., reductive desulfurization, or cyclocondensation with
        pivaldehyde, samarium iodide-promoted)
     132767-06-7P 152299-44-0P
IT
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (prepn., reductive desulfurization, or cyclocondensation with
        propionaldehyde, samarium iodide-promoted)
    ANSWER 6 OF 7 CAPLUS COPYRIGHT 2002 ACS
1.3
    1994:76910 CAPLUS
AN
    120:76910
DN
    Preparation of isonitriles from isothiocyanates
ТΤ
    Fujiwara, Juzo; Takagi, Ken
IN
PA
    Sumitomo Chemical Co, Japan
     Jpn. Kokai Tokkyo Koho, 3 pp.
SO
     CODEN: JKXXAF
DT
     Patent
T.A
    Japanese
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                           APPLICATION NO. DATE
     -----
    JP 05246975 A2
PΙ
                      A2
                           19930924
                                           JP 1992-50612
                                                            19920309
                           20000221
os
     CASREACT 120:76910; MARPAT 120:76910
    RNC [I; R = (cyclo)alkyl, aryl, aralkyl] are prepd. by treating RNCS (R =
AB
     same as I) with lanthanide halides. A mixt. of PhNCS and HMPA was treated
     with SmI2 in THF under reflux for 30 min to give 83% PhNC.
    isonitrile prepn; isothiocyanate desulfurization lanthanide
    halide
IT
    Rare earth halides
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (in desulfurization of isothiocyanates)
IT
    Desulfurization
        (of isothiocyanates, with lanthanide halides)
    103-72-0, Phenyl isothiocyanate 592-82-5 622-59-3, p-Tolyl
IT
     isothiocyanate
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (desulfurization of, isonitrile from)
IT
    32248-43-4, Samarium iodide (SmI2)
```

GI

RL: RCT (Reactant); RACT (Reactant or reagent)
 (in desulfurization of isothiocyanates)

L3 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS 1994:8253 CAPLUS AN 120:8253 DN Reduction of heterocumulenes promoted by low-valent lanthanoids TI Makioka, Yoshikazu; Liu, Yunshan; Bei, Beizhi; Zhou, Zhihua; Shindo, AU Takaaki; Taniquchi, Yuki; Takaki, Ken; Fujiwara, Yuzo Fac. Eng., Hiroshima Univ., Higashi-Hiroshima, 724, Japan Nippon Kagaku Kaishi (1993), (5), 475-81 CS SO CODEN: NKAKB8; ISSN: 0369-4577 DT Journal Japanese LA CASREACT 120:8253 os

AB Heterocumulenes react with lanthanoid reductants such as Yb metal, YbCl3/Zn, and SmI2. In THF or THF-hexamethylphosphoric triamide (HMPA), diphenylketene is reduced with Yb or YbCl3/Zn to give Ph2C:C:CPh2, lactone I, Ph2C:CH(OCOCHPh2), and dioxane II. Isocyanates are reduced with SmI2 to produce oxamides in moderate to good yields. The SmI2/THF/HMPA system desulfurizes isothiocyanates under mild conditions to give isonitriles in good yields.

AB Heterocumulenes react with lanthanoid reductants such as Yb metal, YbCl3/Zn, and SmI2. In THF or THF-hexamethylphosphoric triamide (HMPA), diphenylketene is reduced with Yb or YbCl3/Zn to give Ph2C:C:CPh2, lactone I, Ph2C:CH(OCOCHPh2), and dioxane II. Isocyanates are reduced with SmI2 to produce oxamides in moderate to good yields. The SmI2/THF/HMPA system desulfurizes isothiocyanates under mild conditions to give isonitriles in good yields.

ST phenylketene redn lanthanoid reductant; isonitrile; isocyanate redn samarium iodide; isothiocyanate desulfurization samarium iodide

IT Desulfurization

(of isothiocyanates and thicketones, by lanthanoid compds.)

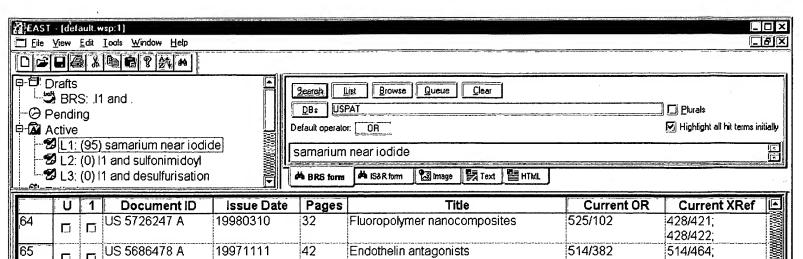
T 103-72-0 622-59-3 628-30-8 1226-46-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(desulfurization of)

IT 7440-64-4, Ytterbium, reactions 32248-43-4, Samarium
iodide (SmI2)

RL: RCT (Reactant); RACT (Reactant or reagent)
 (redn. of diphenylketene by)



					1 5 -	7:40	7.55	1 2 1 1 2 2	117-11
0.4	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef	
64		□	US 5726247 A	19980310	32	Fluoropolymer nanocomposites	525/102	428/421;	
OF THE			LIC ECOCATO A	40074444	100	Todathalia antogoniata	E11100	428/422;	-
65			US 5686478 A	19971111	42	Endothelin antagonists	514/382	514/464; 514/466;	
66		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	US 5684131 A	19971104	11	Substituted benzhydrylamines as	530/334	530/333;	
00			US 3004131 A	19971104	11	handles for solid phase peptide	330/334	562/442	
67			US 5646183 A	19970708	23		514/538	514/539;	
Ŭ,			00 3040 103 77	10070700	20	platelet aggregation inhibitors	01-7000	560/35;	
68	.,		US 5637595 A	19970610	13	Cyclic ether acetal PAF antagonists	514/303	514/234.2;	
						,		514/235.5;	
69		П	US 5616732 A	19970401	29	Intermediates for difluoroprostacyclins	549/305	549/465	
	اسا	Jl				and methods for their production			
70	П		US 5616312 A	19970401	5		424/9.364	424/9.365;	
			***************************************	***************************************		imaging		436/173;	
71			US 5612355 A	19970318	20	Phenyl amidine lactones useful as	514/336	514/422;	
120			LIO EEFOOO	4000000	100	platelet aggregation inhibitors	E40/4E0	514/444;	
72			US 5550233 A	19960827	89		540/456	540/450	
73			US 5548051 A	19960820	21	having immunosuppressive activity Single component inorganic/organic	528/15	528/24;	
13			03 334003 LW	19900020	Z 1	network materials and precursors thereof		528/35;	
74			US 5538995 A	19960723	25	*	514/469	549/311;	
100				10000120	2~	Dinasi oprostacy simo	0 17/700	549/465	
75			US 5504106 A	19960402	22	Phenyl amidine alkanoic acids and	514/460	514/336;	
- 95 ×						lactones useful as platelet aggregation		514/451;	
76			US 5472979 A	19951205	21		514/562	514/357;	
		il				compounds		514/456;	
77		П	US 5459198 A	19951017	11		525/102	525/104;	
	P				. <u> </u>	manufacture formed therefrom, and		525/105;	
78			US 5441939 A	19950815	10		514/29	536/7.2;	
70			110.5400400 4	40050007		erythromycin and azithromycin	E404440	536/7.5	
79			US 5428168 A	19950627	27	Lactol PAF antagonists	546/118	544/335;	
80		········	US 5409937 A	19950425	15	Hexahydrofuro(2,3-b)furans as PAF	514/303	546/269.7; 514/338;	-81
00			00 0409937 K	19930423	:	antagonists	3 14/303	514/394;	
81			US 5378790 A	19950103	24		528/35	427/387;	
					-	network materials and precursors thereof		528/12;	
82	_		US 5302601 A	19940412	39		514/303	546/118	
						· · • · · ·			
83			US 5286899 A	19940215	8	Process for the stereoselective	560/180	544/170;	
, , ,	Bd 	•	iniminani manani ma			transformation of a diol to an alcohol	andre and the first of the first section and the contribution of the first section of the fir	544/336;	
84			US 5262533 A	19931116	39		540/456		
OF.			LIC 5040007 *	40020020		immunosuppressive activity	E64/400	E46464	
85		□	US 5248827 A	19930928	10	Process for producing an ethylenamine	564/480	546/184; 546/246;	
86			US 5219859 A	19930615	22	Indole derivatives, preparation	514/269	514/339;	
			00 02 13003 M	19930013	22	processes and medicinal products	J 1412US	514/339, 514/415;	
87			US 5189200 A	19930223	8	Process for the stereoselective	560/180	549/34;	+
				. 3000220		transformation of a diol to an alcohol		560/151;	
88	_		US 5081252 A	19920114	8		546/102	546/147;	†
88		L				carboxylic acids		546/170;	
89			US 5064835 A	19911112	10	Hydroxymacrolide derivatives having	514/291	514/411;	1
	1		**************************************			immunosuppressive activity		514/63;	
90			US 5057499 A	19911015	15	Avermectin derivatives	514 <b>/</b> 30	514/450;	
04			110 400040 4	10010000	0.5		E4400E	536/7.1;	
91			US 4996318 A	19910226		Amino-9,10-secosteroids useful for	544/295	540/450; 540/506:	
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